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UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE BOARD OF PATENT APPEALS
# AND INTERFERENCES

Application Number: 10/646,341
Filing Date: August 22, 2003
Appellant(s): MARSH ET AL.

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Mr. James A. D. White, Reg. 43,985
For Appellant

## EXAMINER'S ANSWER

This is in response to the appeal brief filed 22 September 2010 appealing from the

Office Action mailed 22 April 2010.

## (1) Real Part of Interest

A statement identifying by name the real part of interest is contained in the brief.

## (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

## (4) Status of Amendments After Final

The appellant's statement of the status of amendments after non-final rejection contained in the brief is correct.

## (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

## (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is

correct.


### (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.


### (8) Evidence Relied Upon


"A social exchange architecture for distributed Web communities"

Amrit **Tiwana**, Ashley Bush. Journal of Knowledge Management. Kempston: 2001. Vol.

5, Iss. 3; p. 242 (7 pages),


US 6952678 **Williams**


"Recommender systems: a GroupLens perspective", JA **Konstan**, J Riedl, A

Borchers, JL … - … systems: Papers from the …, 1998 - aaai.org


"Memory-Based Weighted-Majority Prediction", J **Delgado**, N Ishii - ACM

SIGIR'99 Workshop on Recommender Systems: Algorithms …, 1999 – Citeseer


### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims: The

ground(s) for rejection are reproduced below from the Final Office Action, mailed 22

April 2010, and are provided here for the convenience of both the Appellant and the

Board of Patent Appeals:

## *Claim Rejections - 35 USC § 103*

4      The following is a quotation of 35 USC. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.      **Claims 11-38 and 59-70** are rejected under 35 USC. 103(a) as being

unpatentable over  "A social exchange architecture for distributed Web communities"

Amrit **Tiwana**, Ashley Bush. Journal of Knowledge Management. Kempston: 2001. Vol.

5, Iss. 3; p. 242 (7 pages), (hereinafter **Tiwana**) in view of US 6952678 Williams

(hereinafter **Williams**)

Regarding **Claim 1**, Tiwana teaches:

**11. (Original) A method in a computing device for selecting information to**

**provide to users based on reputations of evaluators of the information, the**

**method comprising:**

**receiving from a reviewer user a review related to an item available from a web merchant, the receiving of the review being performed by one or more programmed computing systems of the Web merchant;**

page 247 column 2, user's review a particular product (i.e. an item).

**receiving multiple evaluations of the review, each of the multiple evaluations being from one of multiple evaluator users, who each has an existing reputation weight <u>for the Web merchant</u> that is based at least in part on previous evaluations supplied by that evaluator user for multiple other reviews <u>for items</u> <u>available from the Web merchant</u>, each received evaluation including a quantitative assessment of contents of the review for each of one or more of multiple content rating dimensions available for use in assessing the review,**

page 247 column 2, user's review a particular review of an item, based on a two-level feedback scale. Thus the reviews of the review are indicating a level of agreement with the review regarding whether they found them of value.

**automatically generating an aggregate assessment of the content of the review based at least in part on combining quantitative assessments from the received evaluations for the review,**

page 246 column 2, based on the reviewers evaluation of a review, votes of useful and not userful are tallied for a particular user.

Tiwana teaches a recommender system where users rate other reviewers'

ratings, but does not teach; however Williams teaches:

**the generated aggregate assessments being further based on the existing**

**reputation weights of the evaluator users in such a manner that a first**

**quantitative assessment from a first evaluator user with a first reputation weight**

**has a different impact on that generated aggregate assessment than that first**

**quantitative assessment from a distinct second evaluator user with a distinct**

**second reputation weight; the automatic generating being performed by the one**

**or more programmed computing systems,**

See Figure 3 – note Merit, Links and wisdom coefficients for voting online – note

the announcement – the more that a person has accomplished online, the more their

vote counts – see also column 4 line 5-10 – influence weighted voting;

column 7 line 57-67 – column 8 line 1-10; workers increase their influence

through their contributions to the working community;

column 8 line 53-63; the users judge each others' online contributions which

affect their online credentials.

Column 9 line 45-67, wisdom and influence are credentials which are increased

based on other's ratings of that user – these credentials can go up or down

Column 10 line 5-10 – influence weighted voting occurs when a user's

credentials (based on another feedback indicator related to the conduct of the other

member) are used to weight that user's rating of a user online (i.e. an adjustment based

on the credential of another member) – see also column 12 line 27-30.

**automatically updating the existing reputation weights for each of one or**

**more of the evaluator users based on a relationship of the quantitative**

**assessments from the evaluation of that evaluator user to the quantitative**

**assessments from the evaluations of other of the evaluator users, the automatic**

**updating being performed by one or more programmed computing systems; and**

column 11 line 33-44; the weights are calculated for each credential; these

weights are based on

column 16 line 1-30; col. 17:55-60, Figures 6a and 6b; Figure 7 #708, the credit

earned (which affect a person's influence score) associated with an evaluation (by an

evaluator user, i.e. someone who is providing feedback to another posting online) are

determined based on the total merit assigned (see Figure 14 #1402-1408).

Thus the evaluation of a post about an idea (i.e. an evaluation of that idea) is

evaluated by others reviewing the postings.  Based on what other assessments are

made (i.e. the quantitative assessments from the evaluations of other evaluator users)

affect how much merit a person earns, which then adjusts their influence score

**For each of the multiple additional users of the web merchant who are**

**distinct from the multiple evaluator users and from the reviewer user, determining**

**whether to provide the review to the additional user based at least in part on the**

**automatically generated aggregate assessments for the content of the review.**

Figure 5; Column 14 line 64 – column 15 line 4; the various ideas can be sorted

according to outlook (i.e. whether an idea is rated in aggregate by the evaluators as

being high or low).  Further Figure 6A shows that various evaluations of an idea (and

those evaluations of those comments or evaluations) can be sorted (e.g. by thread).

While not explicitly showing that the comments (i.e. evaluations) can be sorted or

filtered by the aggregate assessments (and thus shown based on those aggregate

assessments) as is discussed above Williams does show that the aggregate

assessments of an evaluation are used to determine how much merit is given to a user

who posted that comment (i.e. evaluation).   Thus determining whether to show a

comment (i.e. an evaluation) based on the aggregate assessment of that comment

would have been obvious to one of ordinary skill in the art at the time of the invention

because elsewhere Williams does show filtering and displaying based on the aggregate

assessment (e.g. for ideas that are abandoned or adopted) and the combination would

have been predictable by using a technique elsewhere used by Williams to achieve a

predictable result by filtering (i.e. displaying) a comment (i.e. an evaluation) based on

aggregate assessments for the comment of the review.


Williams teaches that using these credentials provides for an online community

that is self organizing – for example, weighting the influence credential provides for

leadership to emerge (see column 12 line 1-10; also see column 1 line 58-59).


Tiwana and Willaims both address the use of approaches to track and

recommend items to a user, thus they both are analogous art.  Tiwana teaches rating

items in an online community where a user becomes a top participant based on their

feedback of other items. Williams shows how users in an online population evaluate each other's evaluations and how those evaluations of the evaluations are processed to provide users with additional influence in the online community, thus organizing the community to identify the thought leaders in the community.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tiwana to include the teachings of Willaims, because it would have provided a predictable result in using the influence weighted approach taught by Williams in the online evaluation system of Tiwana. The combination is predictable and does not destroy either the teachings of Tiwana or Willaims. Additionally, one of ordinary skill in the art would have recognized the self organizing advantages of Williams in providing a way for a community to organize itself by identifying those making the most contributions (i.e. through providing evaluations and evaluations of those evaluations) to thus identify leadership in the community.

Regarding **Claim 12**, Tiwana teaches:

**12. (Original) The method of claim 11 including, before the automatic updating of the reputation weights of the one or more evaluator users, determining whether the received evaluations satisfy an evaluator reputation calculation threshold, and wherein the automatic updating of the reputation weights of the one or more evaluator users is performed only when it is**

**determined that the received evaluations satisfy the evaluator reputation**

**calculation threshold**

Page 247 column 2, evaluations for a user are counted as "useful", i.e. using a

threshold to determine when the votes are counted (versus useless ratings of a user's

reviews).

Regarding **Claim 13**, Tiwana teaches:

**13. (Original) The method of claim 12 wherein the evaluator reputation**

**calculation threshold is based at least in part on a minimum degree of consensus**

**existing among the received evaluations, and wherein the determining includes**

**automatically calculating the existing degree of consensus among the received**

**evaluations.**

Page 247 column 2, the minimum degree of consensus is based on a useful or

useless rating.

Regarding **Claim 14**, Tiwana teaches measuring a user's ratings to that of a

group as per the average group and average member contributions (page 245 column

2).  Tiwana does not teach, but Willaims teaches:

**14. (Original) The method of claim 11 wherein the relationship of the**

**quantitative assessments from the evaluation of an evaluator user to the**

**quantitative assessments from the evaluations of other of the evaluator users**

**that is used when automatically updating the reputation weight for that evaluator**

**user is based on a degree of agreement between the quantitative assessments**

**from the evaluation of the evaluator user and quantitative assessments from a**

**consensus evaluation for the received evaluations.**

As per above, the degree of agreement (i.e. how much the other user's agree

with a user's comment) is used to determine how much influence and merit a user

earns.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Tiwana to include the teachings of Willaims,

because it would have provided a predictable result in using the weighted approach

taught by Willaims in the online evaluation system of Tiwana. The combination is

predictable and does not destroy either the teachings of Tiwana or Willaims.

Regarding **Claim 15**, Tiwana does not teach, but Willaims teaches:

**15. (Original) The method of claim 11 wherein the reputation weights of the**

**evaluator users that are used in the automatic generating of the aggregate**

**assessments of the content of the review were automatically generated based on**

**the previous evaluations by those evaluator users.**

As per above, the weights used in measuring influence for a user are based on

given (i.e. previous) evaluations by those evaluator users.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Tiwana to include the teachings of Willaims,

because it would have provided a predictable result in using the weighted approach

taught by Willaims in the online evaluation system of Tiwana.  The combination is

predictable and does not destroy either the teachings of Tiwana or Willaims.


Regarding **Claim 16**, Tiwana teaches user's rating another user's rating and

does not teach, but Willaims teaches:

**16. (Original) The method of claim 11 including, after the receiving of the**

**evaluations from the evaluator users, for each of at least some of the evaluations**

**receiving one or more ratings of the evaluation from users other than the**

**evaluator user that provided the evaluation, and automatically modifying the**

**reputation weights for evaluator users whose evaluations received ratings based**

**at least in part on those ratings.**

As per above, all users in Williams receive updated reputation weights based on

ratings of their evaluations.


It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Tiwana to include the teachings of Williams,

because it would have provided a predictable result in using the weighted approach

taught by Williams in the online evaluation system of Tiwana.  The combination is

predictable and does not destroy either the teachings of Tiwana or Williams.

Regarding **Claim 17**, Tiwana teaches:

**17. (Original) The method of claim 11 including, after the automatic**

**updating of the reputation weights of the one or more evaluator users, receiving**

**an indication that the content is no longer in use for determining reputation**

**weights of the evaluator users, and automatically updating the reputation weights**

**for each of those evaluator users to remove influence based on the relationship**

**of the quantitative assessments from the evaluation of that evaluator user to the**

**quantitative assessments from the evaluations of other of the evaluator users.**

Page 245 column 2, based on the time selected (ratings of contributions per

week or month) suggests that ratings provided by individual users have a time element

– furthermore Tiwana teaches the ratings of users over time – see page 244 column 2).

This suggests the modification of William's weight calculations be based on a

view that takes into account time periods (i.e. weekly or monthly as suggested by

Tiwana).

Regarding **Claim 18**, Tiwana does not teach but Willaims teaches:

**18. (Original) The method of claim 11 wherein the automatic generating of**

**the aggregate assessments of the content of the review is further based in part**

**on an existing reputation weight of the reviewer user from which the review was received.**

Column 16 line 10-20; the aggregate assessment of the content of the review is based in part on the existing reputation weight of the user from which the review was received (e.g. in the example given the rating was 2 and the weight was 3.3, then the assessment is 2 x 3.3 or 6.6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tiwana to include the teachings of Williams, because it would have provided a predictable result in using the weighted approach taught by Williams in the online evaluation system of Tiwana. The combination is predictable and does not destroy either the teachings of Tiwana or Williams.

Regarding **Claim 19**, Tiwana does not teach but Williams teaches:

**19. (Original) The method of claim 18 wherein the reputation weight of the reviewer user is based on a degree of consistency between one or more of the automatically generated aggregate assessments of the content of the review and automatically generated aggregate assessments of the content of previous reviews received from the reviewer user.**

As per above, the reputation weight is based on both past assessments of previous reviews (how other's rated those reviews in the past) and how others view a current review. For example, if past reviews showed a high regard by others for a

user's review and a current review has low regard, then this would incrementally

decrease the reputation weight for that particular user.


It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Tiwana to include the teachings of Williams,

because it would have provided a predictable result in using the weighted approach

taught by Williams in the online evaluation system of Tiwana.  The combination is

predictable and does not destroy either the teachings of Tiwana or Williams.


Regarding **Claim 20**, Tiwana teaches:

**20. (Original) The method of claim 11 including automatically updating a**

**reputation weight of the reviewer user from which the review was received based**

**at least in part on one or more of the automatically generated aggregate**

**assessments of the content of the review.**

Page 2 column 2, Delgado teaches that all the users in a population who provide

an evaluation or rating have their weights updated based on the similarity (mathematical

similarity) of that rating with the majority.  The weights include comparison with the

majority for all reviews that have been given.


Regarding **Claim 21**, Tiwana does not teach, but Williams teaches:

**21. (Original) The method of claim 20 including, before the automatic updating of the reputation weight of the reviewer user, determining whether the received evaluations satisfy an author reputation calculation threshold, and wherein the automatic updating of the reputation weight of the reviewer user is performed only when it is determined that the received evaluations satisfy the author reputation calculation threshold.**

Column 14 line 23-30, Since Williams suggests that negative or positive weights suggests dissimilar or similar tastes (i.e. likes) respectively, this suggests that weights for similar tastes be updated only when the correlation is positive, i.e. the user is rating something that they like in comparison with the population.

Regarding **Claim 22**, Tiwana teaches:

**22. (Original) The method of claim 11 including, before the automatic generating of the aggregate assessments of the content of the review, determining whether the received evaluations satisfy a content rating threshold, and wherein the automatic generating of the aggregate assessments of the content of the review is performed only when it is determined that the received evaluations satisfy the content rating threshold.**

Page 247 column 2, evaluations for a user are counted as "useful", i.e. using a threshold to determine when the votes are counted (versus useless ratings of a user's reviews).

Regarding **Claim 23**, Tiwana teaches:

**23. (Currently Amended) The method of claim 22 wherein the content rating threshold is based at least in part on a weighted number of the evaluations received for the review from the evaluator users that is based on the reputation weights of the evaluator users in such a manner that an evaluation from a first evaluator user with a first reputation weight has a different impact on that weighted number of evaluations than an evaluation from a distinct second evaluator user with a distinct second reputation weight.**

Tiwana teaches receiving evaluations for a review from various users. These ratings are not weighted. As discussed above, Delgado teaches weighting reviews from users based on their past history (i.e. different users have different weights based on their previous weightings.

Regarding **Claim 24**, Tiwana teaches:

**24. (Original) The method of claim 11 wherein each of the received evaluations include quantitative assessments of the contents of the review for each of the multiple available content rating dimensions.**

Page 247 column 2, evaluations for a user are counted as "useful", i.e. using a

threshold to determine when the votes are counted (versus useless ratings of a user's

reviews). Also see page 247 column 1, a 1 to 5 rating.

Regarding **Claim 25**, Tiwana teaches:

**25. (Original) The method of claim 24 including, before the receiving of the**

**evaluations of the review, determining the multiple available content rating**

**dimensions**.

page 247 column 1, a 1 to 5 rating

Regarding **Claim 26**, Tiwana teaches:

**26. (Original) The method of claim 11 including, before the receiving of the**

**evaluations of the review, soliciting the evaluator users to provide evaluations of**

**the review, the solicitations including indications of the multiple available content**

**rating dimensions**.

Page 247 column 1, users can rate messages (i.e. are solicited to) according to

multiple available rating dimensions (i.e. 1 through 5).

Regarding **Claim 27**, Tiwana teaches:

**27. (Original) The method of claim 11 wherein the automatic generating of the aggregate assessments of the content of the review includes generating an aggregate assessment for each of the multiple available content rating dimensions.**

Figure 3 shows an aggregate assessment for each of the multiple available content rating (i.e. various stars given).

Regarding **Claim 28**, Tiwana teaches:

**28. (Original) The method of claim 27 including automatically generating an overall aggregate assessment of the review based at least in part on the automatically generated aggregate assessments of the content of the review.**

Column 247 column 1 para 2, each message (i.e. item) by a user has shown for that item all the ratings by the users in the community.

Regarding **Claim 29**, Tiwana teaches:

**29. (Original) The method of claim 11 wherein the automatically generated aggregate assessments of the content of the review are each further based on a sales weighting for each of one or more of the evaluator users, the sales weighting of an evaluator user reflecting an amount of prior sales to that evaluator user.**

Page 247 column 2, amazon.com users are rating products that the company has sold (i.e. that they have purchased).

Regarding **Claim 30**, Tiwana teaches:

**30. (Original) The method of claim 11 including, after the automatic updating of the reputation weights for the evaluator users, ranking each evaluator user relative to other evaluator users based at least in part on automatically generated evaluator reputation scores of those evaluator users**.

Page 247 column 2, rankings of users compared to other users.

Regarding **Claim 31**, Tiwana teaches:

**31. (Original) The method of claim 30 wherein the reputation weight for each of the evaluator users is based on a combination of quantity and quality of evaluations provided by that evaluator user,**

Page 247 column 2, reputation is based on the useful votes obtained from a total number of ratings.

**and including automatically generating a distinct evaluator reputation rating score for each of the evaluator users based solely on the quality of the evaluations provided by that evaluator user, and wherein the evaluator reputation scores used for the ranking are the evaluator reputation rating scores**.

Page 247 votes are based on useful ratings by a reviewer

Regarding **Claim 32**, Tiwana teaches:

**32. (Original) The method of claim 30 including providing visible feedback to users of the rankings of at least some of the evaluator users.**

Page 246 Figure 3.

Regarding **Claim 33**, Tiwana teaches:

**33. (Original) The method of claim 11 wherein at least some of the evaluator users each have multiple existing reputation weights that correspond to previous evaluations by those evaluator users of content of different categories, and including, before the automatic updating of the reputation weights for the evaluator users, determining a category of the review, and wherein the automatic updating of the reputation weights of evaluator users that have multiple existing reputation weights is performed for an existing reputation weight of that evaluator user for the determined category.**

Tiwana teaches a user participating in a particular group (page 245 column 1 - contributions to that group). Tiwana also suggests various groups or web-based communities existing - table 1 on page 244. This suggests a user may participate in several groups on the internet. The participating in several groups suggests that ratings

for that group or community will be different. Thus in combination with the rating

weighting approach of Delgado teaches that weights would be different based on the

participation in the group (i.e. category of review).

Regarding **Claim 34**, Tiwana teaches:

**34. (Original) The method of claim 11 wherein at least some of the evaluator**

**users each have multiple existing reputation weights that correspond to different**

**types of activities previously performed by those evaluator users, and wherein**

**the automatic updating of the reputation weights of evaluator users that have**

**multiple existing reputation weights is performed for an existing reputation**

**weight of that evaluator user corresponding to prior review evaluation activities**

**of that evaluator user**.

Tiwana teaches a user participating in a particular group (page 245 column 1 -

contributions to that group). Tiwana also suggests various groups or web-based

communities existing - table 1 on page 244. This suggests a user may participate in

several groups on the internet. The participating in several groups suggests that ratings

for that group or community will be different. Thus in combination with the rating

weighting approach of Delgado teaches that weights would be different based on the

participation in the group.

Regarding **Claim 35**, Tiwana teaches:

**35. (Original) The method of claim 11 including, after the automatic**

**updating of the reputation weights for the evaluator users, providing indications**

**of the reputation weights for one or more of those evaluator users to one or more**

**third-party computing devices so that they can interact with those evaluator**

**users based on those reputation weights.**

Page 246 Figure 4, rating visualizer.

Regarding **Claim 36**, Tiwana teaches:

**36. (Original) The method of claim 11 wherein the method is performed by**

**the computing device on behalf of another computing system with whom the**

**evaluator users are interacting, the method performed as a service to the another**

**computing system.**

Page 247 column 1 para 1, Tiwana teaches the method operating over the web

(i.e. as a service to another computing system, i.e. the internet).

Regarding **Claim 37**, Tiwana teaches:

**37. (Original) The method of claim 11 including receiving from one or more**

**third- party computing devices information related to the reputations of one or**

**more of the evaluator users, the received information based on interactions of**

**those evaluator users with those third- party computing devices, and**

**automatically updating the reputation weights for each of those evaluator users**

**based on the received information**.

Page 247 column 1 para 1, Tiwana teaches the method operating over the web

(i.e. through a third party computing device).

Regarding **Claim 38**, Tiwana teaches:

**38. (Original) The method of claim 11 wherein the review is information**

**obtained from a blog authored by the reviewer user**.

Tiwana teaches information obtained from messages in a community (i.e. items

rated).  Tiwana does not teach where the review is information obtained from a blog

authored by the reviewer user, however the claimed functionality of what is done with

the data is the same,  i.e., the recited method steps would be performed the same

regardless of the specific data.  Further, the structural elements remain the same

regardless of the specific data.  Thus, this descriptive material will not distinguish the

claimed invention from the prior art in terms of patentability, *see In re Gulack, 703 F.2d*

*1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32*

*USPQ2d 1031 (Fed. Cir. 1994); MPEP ' 2106.*

**Claims 59-68** recite similar limitations to those addressed by the rejection of

claims 11-38 above, and are therefore rejected under the same rationale.

Furthermore regarding **Claim 59**, Tiwana teaches an apparatus for performing the method steps (see Figure 4 page 246, "physical level").


Regarding **Claim 69**, Tiwana does not teach, but Williams teaches

**69. (New) The method of claim 11 wherein the automatic generating of the aggregate assessment of the content of the review based on the existing reputation weights of the evaluator users is performed in a manner independent of the multiple additional users.**

As discussed above, Williams teaches only those individuals who have evaluated evaluations contribute to the aggregate assessment of that evaluation – this is done independently of the other users.


It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tiwana to include the teachings of Williams, because it would have provided a predictable result in using the weighted approach taught by Williams in the online evaluation system of Tiwana.  The combination is predictable and does not destroy either the teachings of Tiwana or Williams.


Regarding **Claim 70**, Tiwana does not teach, but Williams teaches

**70. (New) The method of claim 69 wherein the automatic updating of the existing reputation weights of the one or more evaluator users is performed in a manner independent of the multiple additional users.**

As discussed above, Williams teaches that the updating of the weights is done based only on those how have participating in the evaluations of the evaluations (e.g. the comments and voting on a feedback post about an idea) – the reputation weights are updated independent of those who have not participated (i.e. the multiple additional users).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tiwana to include the teachings of Williams, because it would have provided a predictable result in using the weighted approach taught by Williams in the online evaluation system of Tiwana.  The combination is predictable and does not destroy either the teachings of Tiwana or Williams.

5.      **Claims 71 and 72** are rejected under 35 USC. 103(a) as being unpatentable over **Tiwana** in view of **Williams** and further in view of "Recommender systems: a GroupLens perspective", JA **Konstan**, J Riedl, A Borchers, JL ... - ... systems: Papers from the ..., 1998 - aaai.org
 (hereinafter **Konstan**)

Regarding **Claims 71 and 72**, Tiwana and Williams teach a recommender system that relies upon a single dimension content rating.

Tiwana and Williams do not teach there are multiple content rating dimensions with two dimensions as per:

**wherein the multiple available content rating dimensions include at least two of usefulness, accuracy, informativeness, and humorousness**.

However the use of multiple content rating dimensions in recommender systems is taught by Konstan.

Konstan teaches that recommender systems can operate across more than one dimension (i.e. those providing feedback can rate something in more than one category – see page 63 column 1 under user interface. Here Konstan teaches that using more than one rating dimension for evaluation is known in the art of recommendation systems. Konstan teaches that there are items that naturally lend themselves to being rated in more than one dimension.

One of ordinary skill in the art at the time of the invention would have modified the collective teachings of Tiwana and Williams regarding an online evaluation system which rates on one dimension where user's ratings are weighted based on their demonstrated online proficiency (as evaluated by other users) to include the step of providing ratings which are multidimensional (i.e. across more than one dimension) because it would have provided a predictable result in providing a weighted evaluation scheme which rates evaluations across more than one dimension.

6.      **Claims 49-58** are rejected under 35 USC. 103(a) as being unpatentable over "A

social exchange architecture for distributed Web communities"

Amrit **Tiwana**, Ashley Bush. Journal of Knowledge Management. Kempston: 2001. Vol.

5, Iss. 3; p. 242 (7 pages), (hereinafter **Tiwana**) in view of "Memory-Based Weighted-

Majority Prediction", J Delgado, N Ishii - ACM SIGIR'99 Workshop on Recommender

Systems: Algorithms ..., 1999 – Citeseer (hereinafter **Delgado**)


        Regarding **Claim 49**, Tiwana teaches:

        **49. (Previously Presented) A computer-readable medium whose contents

cause a computing device to select information to provide to users based on

reputations of evaluators of the information, by performing a method

comprising::**

        **receiving from a reviewer user a review related to an available item;**

        page 247 column 2, user's review a particular product (i.e. an item).

        **receiving evaluations of the review from each of multiple evaluator users,

each received evaluation including a quantitative assessment of contents of the

review for each of one or more of multiple content rating dimensions available for

use in assessing the review,**

        page 247 column 2, user's review a particular review of an item, based on a two-

level feedback scale.  Thus the reviews of the review are indicating a level of agreement

with the review regarding whether they found them of value.

**automatically generating at least one aggregate assessment of the content of the review based at least in part on combining quantitative assessments from the received evaluations for the review,**

page 246 column 2, based on the reviewers evaluation of a review, votes of useful and not userful are tallied for a particular user.

Tiwana teaches a recommender system where users rate other reviewers ratings, but does not teach; however Delgado teaches:

**each of the evaluator users having an existing reputation weight based at least in part on previous evaluations;**

page 1 column 2 bottom para, weights are used for users based on past performance. These weights are generated based on how closely the reviewer's performance matches the majority.

**at least one of the generated aggregate assessments being further based on the reputation weights of the evaluator users in such a manner that a first quantitative assessment from a first evaluator user with a first reputation weight has a different impact on that generated aggregate assessment than that first quantitative assessment from a distinct second evaluator user with a distinct second reputation weight;**

page 2 column 2 equation 2.2., each user has a calculated prediction (i.e. a review or item j) based on an a weight that is unique for that user (w sub a,i). These

weights depend on the past performance of the reviewers in the past, thus they are different weights.

**automatically updating the reputation weights for each of one or more of the evaluator users based on a relationship of the quantitative assessments from the evaluation of that evaluator user to the quantitative assessments from the evaluations of other of the evaluator users; and**

page 2 column 2, weights for a user are based and updated from a comparison with the votes of the other users (i.e. to what degree the vote from an individual user agrees with the other users is used to determine that user's weight – thus if a user deviates from the consensus repeatedly, then their review or vote is weighted low. Conversely, if a user's review consistently agrees with the majority, then their weight is determined to be high).

**determining whether to provide the review to another user based at least in part on one or more of the automatically generated aggregate assessments for the content of the review.**

Page 3 section 3.3, Delgado teaches that a user may deviate from the population to such a degree that the review or rating is considered a mistake. This concept as applied to an individual review suggests that the review is beyond bounds and thus is not valuable to present (see also page 2 column 2 bottom, dissimilar tastes as measured by an opposite rating suggests not presenting the review).

Tiwana and Delgado both address the use of approaches to track and recommend items to a user, thus they both are analogous art. Tiwana teaches rating items in an online community where a user becomes a top participant based on their feedback of other items. Delgado shows what is known in the art regarding various populations rating items (i.e. reviewing them) in an online context and how those ratings may be processed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tiwana to include the teachings of Delgado, because it would have provided a predictable result in using the weighted approach taught by Delgado in the online evaluation system of Tiwana. The combination is predictable and does not destroy either the teachings of Tiwana or Delgado.


Regarding **Claim 50**, Tiwana teaches measuring a user's ratings to that of a group as per the average group and average member contributions (page 245 column 2). Tiwana does not teach, but Delgado teaches::

**wherein the relationship of the quantitative assessments from the evaluation of an evaluator user to the quantitative assessments from the evaluations of other of the evaluator users that is used when automatically updating the reputation weight for that evaluator user is based on a degree of agreement between the quantitative assessments from the evaluation of the evaluator user and quantitative assessments from a consensus evaluation for the received evaluations.**

page 2 column 2, weights are updated based on how the quantitative assessment of a user agrees with that of the majority (i.e. a consensus).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tiwana to include the teachings of Delgado, because it would have provided a predictable result in using the weighted approach taught by Delgado in the online evaluation system of Tiwana. The combination is predictable and does not destroy either the teachings of Tiwana or Delgado.

Regarding **Claim 51**, Tiwana does not teach, but Delgado teaches:

**51 wherein the reputation weights of the evaluator users that are used in the automatic generating of the aggregate assessments of the content of the review were automatically generated based on the previous evaluations by those evaluator users.**

Page 3 column 1 top para, weights are updated based on the ratings (i.e. predictions) of users – this is based on the degree that those ratings agree with the consensus.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tiwana to include the teachings of Delgado, because it would have provided a predictable result in using the weighted approach

taught by Delgado in the online evaluation system of Tiwana.  The combination is

predictable and does not destroy either the teachings of Tiwana or Delgado.

Regarding **Claim 52**, Tiwana does not teach but Delgado teaches:

**52. wherein the automatic generating of the aggregate assessments of the**

**content of the review is further based in part on an existing reputation weight of**

**the reviewer user from which the review was received.**

Page 2 column 2, assessments of a review are based on the weights of

individual reviewer users

Regarding **Claim 53**, Tiwana teaches:

**53. automatically updating a reputation weight of the reviewer user from**

**which the review was received based at least in part on one or more of the**

**automatically generated aggregate assessments of the content of the review.**

Page 2 column 2, Delgado teaches that all the users in a population who provide

an evaluation or rating have their weights updated based on the similarity (mathematical

similarity) of that rating with the majority.  The weights include comparison with the

majority for all reviews that have been given.

Tiwana does not teach but Delgado teaches:

**wherein the reputation weight of the reviewer user is based on a degree of consistency between one or more of the automatically generated aggregate assessments of the content of the review and automatically generated aggregate assessments of the content of previous reviews received from the reviewer user.**

Page 2 column 2, the weights for a reviewer users is based on similarity (i.e. a degree of consistency) of that reviewer's historical reviews.

Regarding **Claim 54**, Tiwana teaches:

**54. before the automatic generating of the aggregate assessments of the content of the review, determining whether the received evaluations satisfy a content rating threshold, and wherein the automatic generating of the aggregate assessments of the content of the review is performed only when it is determined that the received evaluations satisfy the content rating threshold.**

Page 247 column 2, evaluations for a user are counted as "useful", i.e. using a threshold to determine when the votes are counted (versus useless ratings of a user's reviews).

Regarding **Claim 55**, Tiwana teaches:

**55. wherein each of the received evaluations include quantitative assessments of the contents of the review for each of the multiple available content rating dimensions.**

Page 247 column 2, evaluations for a user are counted as "useful", i.e. using a

threshold to determine when the votes are counted (versus useless ratings of a user's

reviews). Also see page 247 column 1, a 1 to 5 rating.

Regarding **Claim 56**, Tiwana teaches:

**56. wherein the automatic generating of the at least one aggregate**

**assessments of the content of the review includes generating multiple aggregate**

**assessment for each of the multiple available content rating dimensions**.

Figure 3 shows an aggregate assessment for each of the multiple available

content rating (i.e. various stars given).

**and further automatically generating an overall aggregate assessment of**

**the review based at least in part on the automatically generated aggregate**

**assessments of the content of the review**.

Column 247 column 1 para 2, each message (i.e. item) by a user has shown for

that item all the ratings by the users in the community.

Regarding **Claim 57 and 58**, Tiwana teaches:

Tiwana teaches software for performing the method (see page 244 "web based

front end" and page 246 Figure 3.  Also note Figure 4 on page 246).

### (10) Response to Argument

The applicant's arguments have been fully considered but are not persuasive

The applicant argues on page 15 that Tiwana and Williams fails to teach

**updating an evaluator user's reputation weight based on a relationship between the quantitative assessments provided by the evaluator user in an evaluation of an item review and the quantitative assessments provided by other evaluator users in evaluations of the same item review**.

The examiner respectfully disagrees.

The claim actually recites:

"**updating the existing reputation weights for each of one or more of the evaluator users based on a relationship of the quantitative assessments from the evaluation of that evaluator user to the quantitative assessments from the evaluations of other of the evaluator users**".

Thus, the claim does not recite that the quantitative assessments from the other evaluator users are specifically for the same item review, but rather more broadly that the quantitative assessments are "from the evaluations of other of the evaluator users".

Tiwana teaches users providing a quantitative assessment of an item review. Tiwana's discussion surrounds reviewers at Amazon.com's website. Specifically

Tiwana teaches (page 247 column 2):

> (www.amazon.de). Customers can rate and comment on books, music, and other products that the company sells. Feedback mechanisms kick in after customers comment on and rank products that the company sells. Other members can add value ratings on a simple two-level feedback scale that identifies whether specific customers who read those comments found them to be of value. This feedback accumulates in the electronic records of individual customers. Based on the value that other members of Amazon.com's customer base attach to these rankings, the original contributors' profiles are populated with an increasing count of useful/useless votes. Individual contributors are then assigned a rank, and the highest ranking customers are given additional recognition as being the "Top 10", "Top 100", or "Top 1,000" reviewers.

Thus, as shown by Tiwana, the weight of an evaluator user is updated (i.e. as to whether they are weighted as being a Top 10, 100 or 1,000 user) based on others evaluations of how that evaluator user reviews an item. The claim recites that there is a relationship (an unspecified relationship) between how a particular user rates an item, and how others rate that first user's review of an item. So in Tiwana's teachings, as shown above, a user rates an item and others then quantitatively rate how they value that first user's review. The claim goes on to recite that the weights for a user are updated based on how other's provide evaluations, which Tiwana shows to be the mechanism (i.e. the relationship) for a user who has received many positive feedbacks

from other users to be rated as a top reviewer.

Thus Tiwana teaches:

**"updating the existing reputation weights for each of one or more of the**

**evaluator users**

(The reputation weight being how many positive vs negative reviews a user gets

from others on their way to being rated a top reviewer, ie. Top 10, 100 or 1000

reviewer).

**based on a relationship of the quantitative assessments from the**

**evaluation of that evaluator user to the quantitative assessments from the**

**evaluations of other of the evaluator users**

(So the relationship between a user's review of an item and how other's rate that

item determines how many positive or negative votes they get, which then determines if

they are updated to a "Top Reviewer" status).


The applicant argues that Williams fails to teach updating of weights where the

updates:

**are not determined or otherwise updated based on how a worker's**

**quantitative assessments of others' content relates to other worker's quantitative**

**assessments of that same content.**

The examiner respectfully disagrees.

The claim does not recite "other worker's quantitative assessments of the same

content but rather "others evaluations" period.  This discrepancy between the

applicant's arguments and the claims is discussed above.  The claim recites:

**based on a relationship of the quantitative assessments from the**

**evaluation of that evaluator user to the quantitative assessments <u>from the</u>**

**<u>evaluations of other of the evaluator users</u>**


There is nothing in the claim that requires the evaluations of others to be of the

same content (i.e. the other evaluator users are not evaluating the same item as the first

user, they are only providing "evaluations").  In fact, earlier in the claim the claim recites:

**Receiving multiple evaluations of the review...each received evaluation**

**including a quantitative assessment of contents of the review for each of one or**

**more of multiple content rating dimensions available for use in assessing the**

**review,**

Thus the other evaluators are evaluating the review itself, rather than "**worker's**

**quantitative assessments of that same content**" as is argued by the applicant.


As discussed above, Tiwana teaches other users rating the review given by a

single user, which is what the claim recites.


The applicant argues with respect to Williams that "**the worker's posts are not**

**evaluations of content provided by other  users, nor do they include quantitative**

**assessments of any such content provided by other users, and furthermore, the**

**worker's posts are not evaluated "based on a relationship of the quantitative**

**assessments from the evaluation ... to the quantitative assessments from the**

**evaluations of other of the evaluator users," as recited in claim 11. Instead, this**

**indicated functionality of Williams that is quoted above is completely unrelated to**

**determining a user's reputation based on how a user's quantitative assessment of**

**content <u>relates to other user's quantitative assessments of the same content</u>.**

(emphasis added)

The examiner respectfully disagrees.

As discussed twice above, the other users are not providing quantitative

assessments of the same content, but rather assessments of a user's evaluation.


Willaims is being relied upon to teach:

**the generated aggregate assessments being further based on the existing**

**reputation weights of the evaluator users in such a manner that a first**

**quantitative assessment from a first evaluator user with a first reputation weight**

**has a different impact on that generated aggregate assessment than that first**

**quantitative assessment from a distinct second evaluator user with a distinct**

**second reputation weight; the automatic generating being performed by the one**

**or more programmed computing systems.**


Tiwana's feedback system provides for a way for users to receive votes such that

their aggregate scores qualify them to be a top reviewer.  However, in Tiwana, a top

reviewer's review and the review of another user (not a top reviewer) both carry the

same weight  (For example, a Top Reviewer could rate a product highly, and another user could rate an item highly – both ratings are no directly weighted by the status of the reviewer).  There is an implied weighting when a positive or negative review is given by a "top reviewer", since that reviewer carries and has earned a greater trust in general from the community.  However, in how individual products are scored on Amazon, there is no numerical weighting that grants a heavier weight to a top reviewer vs a non-top reviewer.

Williams was relied upon in this distinction – that is, that a first quantitative assessment from a first reviewer with a first reputation weight has a different impact on the aggregate assessment than the assessment from a second reviewer with a second reputation weight.  Williams teaches that as workers contribute in online communities and other individuals rate a worker's contribution, the other individuals are rated as to the quality of rating they gave a worker's contribution.  These secondary ratings, i.e. or reviews given of other reviews, then accumulate so that as users express more evaluations that are in greater agreement with others, those users accumulate greater weights (i.e. their expressed opinion carries more numerical weight) than users who moreso deviate from the group consensus. (see See Figure 3  see also column 4 line 5-10 – influence weighted voting; column 7 line 57-67 – column 8 line 1-10; column 8 line 53-63; Column 9 line 45-67, Column 10 line 5-10 – Williams term for this approach is "influence weighted voting).  Thus in Williams, if a person who has earned greater weight (and considered by others to be a greater contributor) gives feedback, that

feedback or evaluation is weighted numerically higher than a person with lower weight

(i.e. lower prestige in the community).


The applicant argues that Williams does not describe that a voting worker

himself/herself earns merit or any other form of reputation based on how that worker

has voted for another worker's post, and specifically does not describe that a voting

worker earns any form of reputation based on a relationship of the voting worker's votes

to how other workers have voted for that same particular post.

The examiner respectfully disagrees.

The claim language that Williams is relied upon to teach is:

**the generated aggregate assessments being further based on the existing**

**reputation weights of the evaluator users in such a manner that a first**

**quantitative assessment from a first evaluator user with a first reputation weight**

**has a different impact on that generated aggregate assessment than that first**

**quantitative assessment from a distinct second evaluator user with a distinct**

**second reputation weight; the automatic generating being performed by the one**

**or more programmed computing systems**

As discussed above, Williams teaches this with respect to his influence weighted

voting

**automatically updating the existing reputation weights for each of one or**

**more of the evaluator users based on a relationship of the quantitative**

**assessments from the evaluation of that evaluator user to the quantitative**

**assessments from the evaluations of other of the evaluator users, the automatic**

**updating being performed by one or more programmed computing systems; and**

column 16 line 1-30; col. 17:55-60, Figures 6a and 6b; Figure 7 #708, the credit

earned (which affect a person's influence score) associated with an evaluation (by an

evaluator user, i.e. someone who is providing feedback to another posting online) are

determined based on the total merit assigned (see Figure 14 #1402-1408).

Thus the evaluation of a post about an idea (i.e. an evaluation of that idea) is

evaluated by others reviewing the postings – this is directly analogous to Tiwana's

Amazon.com's evaluation of reviews.  Other user's evaluations of those postings (i.e.

the quantitative assessments from the evaluations of other evaluator users) determine

how much merit a person earns (i.e. their reputation weight), which then adjusts their

influence score when they subsequently provide other feedback.


The applicant argues that there is no motivation as to why someone would

modify Tiwana's teachings with those of Williams, citing KSR.

The examiner respectfully disagrees.

The examiner did not rely upon TSM to combine the references, but rather

Rationale A, where the combination of Tiwana and Williams provide a predictable result.

Even assuming arguendo that the TSM test were to be applied, one of ordinary

skill in the art would modify Tiwana to include Williams teachings.

In Tiwana, evaluators receive enough feedback to achieve a "Top Reviewer"

status.  As discussed above, this distinction that a user achieves provides an implicit

weighting, since the review they give is noted to be from a "Top Reviewer", i.e.

someone who has earned the trust of the Amazon.com community.  The rationale

Tiwana gives for why rewarding users with such a "distinction" is to encourage their

participation in the online community (page 243 column 10).

> Social exchange theory (Thibaut and Kelley,
> 1959) further suggests that participants in
> such peer-to-peer community networks
> expect mutual reciprocity that justifies their
> expense in terms of time and energy spent
> sharing their knowledge. Group knowledge-
> sharing processes will result in poor outcomes
> if members are dissatisfied with them.

Tiwana goes on to extend this idea to Amazon.com's website (page 247 column

1).

## Application case exemplar: Amazon.com

> Active feedback mechanisms, facilitated by the
> technology through which members of a
> community interact, improve the commitment
> of members to knowledge sharing and
> integration within the community.

Thus the distinction of being a "Top Reviewer" on Amazon.com encourages

users to share their knowledge and provides them with a sense of community and

encourages their participation.

Williams teaches that an online community can "self organize" by identifying those that make greater contributions to the community (i.e. through their superior knowledge sharing). William's mechanism for incorporating this feedback mechanism (as discussed above) is to provide a way for positive or negative feedback that is received to numerically weight a user's future feedback (i.e. the influence weighted voting). Thus if a user rates the postings of others, and that user's ratings are in general disagreement with the community, then that user's future ratings of other's will be proportionately, numerically diminished (i.e. their influence weighted voting goes down). Conversely, those users whose ratings of others are positively evaluated by others will have their individual weights go up (i.e. their influence weighted voting goes up).

Those with high influence weights in Williams are directly analogous to those individuals in Tiwana who have achieved "Top Reviewer" status. Incorporating William's influence weighted voting into Tiwana's review system would provide the result of increasing the weight of a "Top Reviewer" in rating items, since the weight is proportionate to their level of "Top Reviewer" status. It would reward them and further encourage their participation in knowledge sharing by giving them additional weight in the feedback they provide in the community. This is in total agreement with Tiwana's discussions noted above about getting individuals to participate in an online community. Also, in column 2 line 1-10, Williams notes that his approach provides a way for a group of individuals to provide an adaptive mechanism that functions optimally without central

control. Thus one of ordinary skill in the art would find motivation to incorporate the

influence weighted voting of Williams in Tiwana because it would provide for an

adaptive online community that optimally functions without central control.


The applicant's arguments with respect to Claim 59 are addressed as above for

claim 11.


The applicant's arguments with respect to Claims 71-72 are addressed as above

for claim 11.


The applicant argues with respect to Claim 59 that the cited references of Tiwana

and Delgado fail to teach **maintaining an existing reputation weight for evaluator**

**users based on prior evaluation activities, and of using those reputation weights**

**to assess newly evaluated content**.

The examiner respectfully disagrees.

The examiner notes that in further support the applicant alleges that since

Delgado teaches a recommender system, Delgado fails to teach

**a system in which each evaluator user is given a reputation weight based**

**on their past evaluation activities - instead, in Delgado, the relevance of a**

**particular user's past votes will be given a different weight for each active user**

**for whom a recommendation is made, in a manner specific to that active user, in**

**order to reflect similarities to that active user, rather than based on any inherent**

**aspects of the other particular user's past votes.**

The claim limitations that Delgado is relied upon to teach are:

**each of the evaluator users having an existing reputation weight <u>based at</u>**

<u>**least in part on previous evaluations**</u>**;** (emphasis added)

In page 1 column 2 bottom para, Delgado teaches:

"**In memory-based collaborative filtering algorithms, commonly used for**

**Recommender Systems, the vote prediction of an active user… is done based on**

**some partial information regarding the active user and a set of weights calculated**

**directly from the entire vote database**".

The applicant argues something narrower than what the claim recites.  Here the

claim says the weight is "**based at least in part on previous evaluations**"; it does not

say <u>where the previous evaluations come from</u> - are they evaluations of this user or

others - the claim doesn't recite this.  Delgado teaches this limitation because the weight

assigned to a user come from the database of votes, i.e. **"in part on previous**

**evaluations"**.

That applicant argues that Claim 49 "generally recites that a single content

assessment for an item review is used to determine how to use that item review with

other users. Conversely, Delgado's user- specific recommendation system cannot be

used in this manner."

The examiner respectfully disagrees.

The rejection is made over a combination of references. Tiwana, as discussed above, teaches a system where a user's evaluations are rated by a community of other users. To the extent that a particular user in Tiwana's system has similar tastes with the other users, then this particular user will receive ratings that reflect the alignment of tastes. For example, if a user writes a favorable rating of a book by John Grisham, and the community at that particular time has a majority of John Grisham fans, then the feedback for that review will generally be positive. The term in the art is a user's "preference" and Tiwana's system will tend to provide greater positive feedback to a user when that user's preference is more aligned with the community as a whole. In any case, the alignment of a user's rating for an item is indicated by how many positive vs negative ratings they receive from others in the community who give feedback on the evaluation.

Thus the feedback in Tiwana's system e.g. "Top 100 Reviewer", provides an indication of alignment between a particular user who has achieved that rating and the larger community.

This is not at all at odds with Delgado. In Delgado's system, weights are used to measure the degree to which a user's votes are aligned (or not) with the rest of the voting population. In Delgado (see page 2 column 2), the weights for an individual user are updated based on how their vote aligns with the rest of the population (i.e. the weights measure the degree of similarity between users):

Contrary to On-line learning algorithms, Memory-based algorithms, that calculate weights solely based on the data available, do consider the relativeness among votes. For example, when the correlation coefficient is used, weight $ws(a,i)$, which expresses the degree of similarity between users, is a real number in the interval $[-1,1]$. An actual vote (deviation from the mean), that express the opinion of a user over a given item, can be a positive value, zero or a negative value. It easy to verify that the

This can be interpreted in words as "similar users tend to like (and dislike) the same items, meanwhile dissimilar users usually have opposite tastes", which is very intuitive.

To summarize this section, we would say that a weight $wc$ in On-line algorithms represents the "confidence" on each expert's prediction, whether a weight $ws$ in Memory-based algorithms, represents "similarity" among the predictors and the active target function. Although related, the semantics behind the weights in both cases are not the same. On the other hand both are calculated from predictions done in the past. Thus, the former is done by updates done in each trial considering only the value of the weight in the previous trial and the actual prediction, whether the later is a calculation on all the historical data accumulated up to the actual trail.

This is not at all consistent with Tiwana. Delgado's comment that "similar users tend to like (and dislike) the same items" is consistent with Tiwana's teachings. In Tiwana, users who give reviews that are more liked by other users are more favorably ranked, thus the weights in Delgado (higher weights mean more similarity) are consistent with the popular reviewers in Tiwana being rated higher by the community.

The applicant argues that there is no motivation as to why someone would modify Tiwana's teachings with those of Delgado, citing KSR.

The examiner respectfully disagrees.

The examiner did not rely upon TSM to combine the references, but rather

Rationale A, where the combination of Tiwana and Delgado provide a predictable result.

Even assuming arguendo that the TSM test were to be applied, one of ordinary

skill in the art would modify Tiwana to include Williams teachings.

In Tiwana, evaluators receive enough feedback to achieve a "Top Reviewer"

status.  As discussed above, this distinction that a user achieves provides an implicit

weighting, since the review they give is noted to be from a "Top Reviewer", i.e.

someone who has earned the trust of the Amazon.com community.  The rationale

Tiwana gives for why rewarding users with such a "distinction" is to encourage their

participation in the online community (page 243 column 10).  Furthermore Tiwana

teaches that (page 241 column 1):

> 1998). Knowledge-sharing effectiveness in
> Web communities is influenced by three
> factors identified from collaborative filtering,
> organizational learning, and knowledge
> management research:
> (1) level of participation;
> (2) level of consensus and cooperation;
> (3) satisfaction with group processes.

Since Tiwana teaches that knowledge-sharing effectiveness in web communities

is influenced by "level of consensus", then one of ordinary skill in the art would

recognize that the similarity weights used to measure how an individual user's votes or

expressed preferences are aligned with those of the overall community, as taught by

Delgado, would improve the system of feedback in Tiwana, because it would reflect the

level of consensus of an individual evaluator with the rest of the online community.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jonathan G. Sterrett/
Primary Examiner 3623

1 December 2010

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